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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/574,726	05/18/2000	Geoffrey B. Rhoads	60195	9782
23735	7590	08/11/2006	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			AGWUMEZIE, CHARLES C	
			ART UNIT	PAPER NUMBER
			3621	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/574,726

Applicant(s)

RHOADS, GEOFFREY B.

Examiner

Charlie C. Agwumezie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 26-29 and 91-94 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 26-29, and 91-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/1/03; 5/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 15-25 and 30-90 are cancelled. Claims 1, 8, 11, 26 and 27 are amended. Claims 91-94 are newly added. Claims 1-14, 26 –29, and 91-94 is pending in this application per response to office action filed on May 22, 2006.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14, 26-29, and 91-94 have been considered but are moot in view of the new ground(s) of rejection.

3. Claims 1-14, 26-29, and 91-94 have been examined.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-9, 11-14, 26, 28, and 91-92, and 94, are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele U.S. Patent No. 5,444,779 in view of Lahr U.S. Patent 4,179,212.

As per claim 1, Daniele discloses a method of distributing digital source material comprising:

passing the encoded source material to a destination through at least one intervening steganographic decoder, the encoded sources material comprising plural-bit auxiliary data steganographically embedded in the digital sources material, the digital sources material including data representing visual or audio information that is perceptible when the output from the device, and the visual or audio information including modifications to embed the plural bit auxiliary data that are imperceptible to a user (fig. 2 and 7; col. 4, lines 1-20; col. 6, lines 40-67; col. 8, lines 40-55);

at said intervening steganographic decoder, detecting encoded source material transmitted thereby (fig. 2 and 7; col. 4, lines 1-20; col. 6, lines 40-67; col. 7, lines 1-24); and

crediting a payment in response to said detection of the encoded source material, in accordance with the plural-bit auxiliary data steganographically conveyed by the encoded source material (fig. 2 and 7; col. 12, lines 27-45; col.8, lines 40-55).

What Daniele does not explicitly disclose is embedded plural-bit auxiliary data that is imperceptible to the user. Daniele however discloses that the glyph code is not readily discernible (visible) to a person attempting to make unauthorized copy.... (col. 7, lines 25-45)

Lahr discloses that the embedded plural-bit auxiliary data is imperceptible to the user (fig. 2; col. 3, lines 25-35; see claim 1).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the embedded plural-bit auxiliary data is imperceptible to the user in view of the teachings of Lahr in order to ensure that the code is not readily discernible to a user.

As per **claim 2**, Daniele further discloses the method which includes decoding plural-bit auxiliary data only from source material that has first been tested to indicate the likely presence of such auxiliary data therein (Col. 13, lines 55- col. 14, line 5).

As per **claim 3**, Daniele further discloses the method which includes testing source material by reference to an encoding attribute that is supplemental to said encoded plural-bit auxiliary data (col. 14, lines 10-25).

As per **claim 4**, Daniele further discloses the method in which said attribute is the presence of a characteristic signature signal conveyed by said source material (col. 5, lines 7-20; col. 14, lines 10-25).

As per **claim 6**, Daniele further discloses the method in which said transmitting includes distributing through a network of interconnected computers (see figs. 2 and 7).

As per **claim 7**, Daniele further discloses the method of reporting said detection to a location remote from detection (figs. 2 and 7); and crediting royalties based on detection (col. 3, lines 22-47; co. 4, lines 61-col. 5, line 20).

As per **claim 8**, Daniele discloses a method comprising:
presenting audio source material to a consumer, the material being encoded steganographically to convey plural-bit auxiliary data the audio source material including audio information that is perceptible when output from the device, the audio information including audio information modifications to embed the plural-bit auxiliary data that are imperceptible to the consumer(fig. 2 and 7; col. 1, lines 60-67; "...type of work prose, poetry or music..."; col. 6, lines 39-67);
decoding the audio source material that is presented to the consumer to decode the auxiliary data therefrom (figs. 2 and 7; col. 8, lines 22-40); and
using the plural-bit auxiliary data to retrieve information about the source material from a remote location (figs. 2 and 7; col. 13, lines 22-25, 55-66).

What Daniele does not explicitly disclose is embedded plural-bit auxiliary data that is imperceptible to the user.

Lahr discloses that the embedded plural-bit auxiliary data is imperceptible to the user (fig. 2; col. 3, lines 25-35; see claim 1).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the embedded

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plural-bit auxiliary data is imperceptible to the user in view of the teachings of Lahr in order to ensure that the code is not readily discernible to a user.

As per claim 9, Daniele further discloses the method that includes:

storing data indicating the audio source material(s) presented to the consumer (col. 13, lines 45-55);

generating a report based on the stored data, indicating the audio source material(s) presented to the consumer (col. 13, lines 45-66).

As per claim 11, Daniele discloses a method comprising:

receiving an object steganographically encoded with plural-bit auxiliary data the digital object including perceptible visual or audio information with imperceptible modifications that have been made to encode the plural-bit auxiliary data in the visual or audio information of the object (fig. 2; col. 1, lines 10-15; col. 4, lines 1-20);

decoding the plural-bit auxiliary data from the object (col. 6, lines 39-67);

consulting a registry to determine a transaction associated with the object, by reference to said decoded plural-bit auxiliary data (col. 13, lines 55-65); and

making a payment in accordance with the transaction (fig. 2 and 7; col. 12, lines 27-45; col.8, lines 40-55; col. 9, lines 65 – col. 10 , line 20).

What Daniele does not explicitly disclose is embedded plural-bit auxiliary data that is imperceptible to the user.

Lahr discloses that the embedded plural-bit auxiliary data is imperceptible to the user (fig. 2; col. 3, lines 25-35; see claim 1).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the embedded plural-bit auxiliary data is imperceptible to the user in view of the teachings of Lahr in order to ensure that the code is not readily discernible to a user.

As per **claim 12**, Daniele further discloses the method that includes making said payment through the registry (see figs. 1, 2 and 7).

As per **claim 13**, Daniele further discloses the method in which the object is a work of authorship, and the encoding adds a generally imperceptible level of noise to the object as it is perceived by a consumer thereof (fig. 7; col. 13, lines 55-65).

As per **claim 14**, Daniele further discloses the method in which the registry comprises a database accessible through the internet (fig. 7; col. 9, lines 39-65).

As per **claim 26**, Daniele discloses a method of altering music data to steganographically insert plural bits of watermark data therein, characterized by steganographically inserting at least a first group of said bits for benefit of an end-user of the music data by imperceptibly altering perceptible attributes of the music data, inserting a second group of bits different than the first for benefit of an artist whose

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music is encoded by said music data, inserting a third group of bits different than the first two for benefit of a distributor of the music data, and storing in a registry accessible to the end user an association between information about the music data and at least a portion of the plural-bits (col. 6, lines 39-67; col. 10, lines 1-20).

What Daniele does not explicitly disclose is imperceptibly altering perceptible attributes of the music data.

Lahr discloses the method of imperceptibly altering perceptible attributes of the music data (fig. 2; col. 3, lines 25-35; see claim 1).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the embedded plural-bit auxiliary data is imperceptible to the user in view of the teachings of Lahr in order to ensure that the code is not readily discernible to a user.

As per **claim 28**, Daniele further discloses the method in which the second group of bits includes bits representing a unique identifier for the music data, permitting machine identification of the data and royalty credit to the artist (col. 10, lines 1-25).

As per **claim 91**, Daniele further discloses the method wherein the payment is credited for entertainment content provided to the user in response to processing at least a portion of the plural-bit data (col. 1, lines 10-15; col. 7, line 25-45).

As per **claim 92**, Daniele further discloses the method wherein the entertainment content is different from the encoded source material and is provided from a location remote from the steganographic decoder (figs. 5 and 6).

As per **claim 94**, Daniele further discloses the method wherein the transaction comprises providing content related to the object to a user, and the payment comprises payment associated with providing the content related to the object to the user (col. 10, lines 1-25)

6. **Claim 5**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele U.S. Patent No. 5,444,779 and Lahr U.S. patent 4,179,212 as in claim 1, above and further in view of Mosses U.S. Patent No. 5,473,631.

As per **claim 5**, both Daniele and Lahr failed to explicitly disclose the method in which the signature signal is a repetitive noise burst signal.

Moses discloses the method in which the signature signal is a repetitive noise burst signal (col. 3, lines 40-64; col. 7, lines 32-56).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the method in which the signature signal is a repetitive noise burst signal in view of the teachings of Moses et al in order to show alternative method of detecting the data.

7 **Claims 10 and 27, 29 and 93,** are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele U.S. Patent No. 5,444,779 and Lahr as in claims 1, 10, and 26, above and further in view of Hamilton et al U.S. Patent No. 5,249,166.

As per **claim 10**, both Daniele and Lahr failed to explicitly disclose the method which includes detecting the presented audio source material with a microphone, and decoding the auxiliary data from a microphone output signal.

Hamilton et al discloses the method which includes detecting the presented audio source material with a microphone, and decoding the auxiliary data from a microphone output signal (col. 6, lines 37-60).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the method method which includes detecting the presented audio source material with a microphone, and decoding the auxiliary data from a microphone output signal in view of the teachings of Hamilton et al in order to show alternative method of detecting the data.

As per **Claim 27 and 93,** Daniele shows the method including storing in the registry an association between the first group of bits but does not expressly show an internet address of a web site accessible by end-users of the music data, the registry providing the web site address in response to receiving at least the first group of bits.

However these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. The detection of the

encoding and payment of royalty would be performed the same regardless since the the internet is only a means of transferring the data and/or payment for the copyrighted material. Thus, this descriptive material will not distinguish the claimed invention from prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to transfer the information through the internet by representing the internet address with certain number of bits because such data does not functionally relate to the steps in the method or system claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

As per claim 29, both Daniele and Lahr failed to explicitly disclose the method in which the third group of bits represents usage restrictions to which audio appliances are responsive, thereby driving distribution of additional copies of the music data

Hamilton further discloses the method in which the third group of bits represents usage restrictions to which audio appliances are responsive, thereby driving distribution of additional copies of the music data (col. 6, lines 39-67).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the method in which the third group of bits represents usage restrictions to which audio appliances are responsive, thereby driving distribution of additional copies of the music data in view of

the teachings of Hamilton et al in order to ensure only authorized user have access to the data.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures

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may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Agwumezie whose number is **(571) 272-6838**. The examiner can normally be reached on Monday – Friday 8:00 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on **(571) 272 – 6712**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Any response to this action should be mailed to:

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(571) 273-8300. [Official communications; including After Final communications labeled "Box AF"].

(571) 273-8300. [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"].

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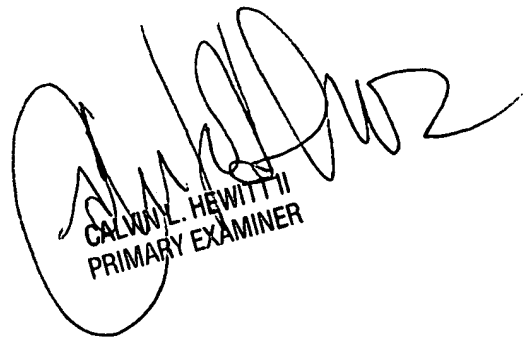
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Charlie Lion Agwumezie
Patent Examiner
Art Unit 3621
July 27, 2006



CALVIN L. HEWITT II
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